



Auto/Air Power Inverter with USB Ports

INSTRUCTION GUIDE



This product comes with a
2-year limited warranty
& free technical support.
www.kensington.com
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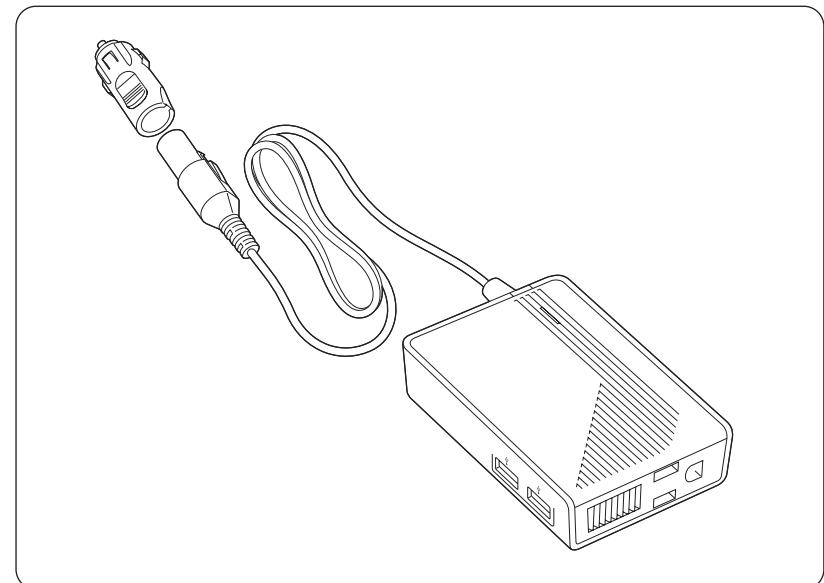
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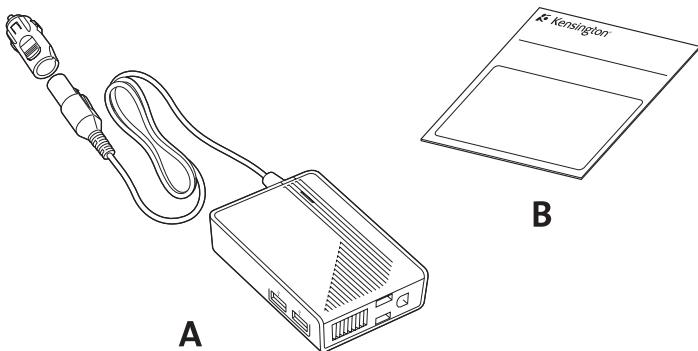
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Congratulations!

Your new Kensington® Auto/Air Power Inverter with USB Ports is a high-efficiency device designed to provide you with AC (WALL) power in your vehicle and on a plane. Your Inverter works from any 12 Volt cigarette lighter/vehicle power source and even in your seat on airlines that offer EmPower® ports!

Your new Inverter is one of the safest and most advanced AUTO/AIR to WALL Power Inverters available today. Its compact and sleek design is thin and light. With proper care and usage, it will give you years of reliable service complementing your active lifestyle.

Your Inverter is convenient and easy to use, ready to supply AC (WALL) power when you need it in the car or on the plane. Your Inverter is intended to power notebook computers requiring up to 120 Watts of continuous power but can also be used with other portable electronic devices including digital cameras, mobile phones, video cameras, iPod®/MP3 music players, PDAs, and more!

NOTE: Airplane use on aircraft offering EmPower® ports only. Check with your airline to determine if the aircraft you are traveling on has this feature.

Please read this short instruction guide to safely and properly use your new Inverter. Keep this guide handy for future reference.

Please register your Inverter online at www.kensington.com.

Features

1. AC (WALL) receptacle capable of accepting most common US 2-pin and 3-pin plugs
2. Provides AC (WALL) power in a car or on a plane
3. Plugs into any standard 12 Volt cigarette lighter outlet or 12 Volt vehicle power source
4. Cigarette lighter plug converts into an airline-compatible EmPower® outlet
5. Compact, thin, and lightweight—only 23mm tall and 200g in weight
6. Ultra portable, fits conveniently in your notebook carrying case or glove box
7. Sleek design looks good in any vehicle
8. Fan-cooled, ensuring good ventilation and reliable performance
9. Built-in safety features including over-current protection, low- and over-supply voltage protection, and over-temperature protection
10. Supplies continuous power of 120 Watts, and up to 150 Watts of peak power for start-up of your portable electronic device
11. Components include LED light indicator

NOTE: In this guide, A = Amps, Hz = Hertz, V = Volts, W = Watts, AC = Alternating Current (WALL Power), DC = Direct Current (AUTO/AIR Power)

Important: Safety Information



This instruction guide contains important safety and operating instructions for your Inverter. To reduce the risk of injury and property damage, please carefully read and follow these instructions and pay special attention to the Warning statements as indicated by the icons before installing and using your Inverter.

Failure to follow the warnings in this guide may cause damage to both the vehicle/aircraft your Inverter is drawing power from and the device you are powering. It may also cause electrical shock that could result in serious injury or death.



Warning! Electric Shock Hazard!

Your Inverter generates the same potentially lethal AC power as a normal household wall outlet. To prevent serious or fatal injury and/or property damage, follow these precautions:

- Keep your Inverter away from children.
- Keep and refer to your instruction guide. All persons who use your Inverter must read and follow the instructions on installing and operating the Inverter.
- Do not insert foreign objects into the AC receptacle of your Inverter.
- Keep your Inverter dry. Do not expose your Inverter to water, rain, snow, or spray. Stop using your Inverter immediately if it has been exposed to direct moisture. Consult a qualified technician before resuming use of your Inverter if exposed to moisture.

- Do not cover, block, or insert foreign objects into the cooling vents on the body of your Inverter.
- Do not attempt to open or repair your Inverter. All repairs must be made by a qualified technician. Modifying or tampering with your Inverter's external or internal components could result in serious or fatal injury and/or property damage. Opening, modifying, or tampering with your Inverter will void the warranty.
- Do not use your Inverter if it is in any way damaged. Inspect the Inverter, including cords, for damage before each use.



Warning! Do Not Operate Your Inverter or Portable Electronic Device While Driving!

You may become distracted from safe driving while attempting to operate your Inverter or the portable electronic device your Inverter is powering. This unsafe action may lead to a traffic accident resulting in personal injury and/or property damage.



Warning! Do Not Run Your Vehicle's Engine in a Garage or Other Enclosed Area!

If you are running your vehicle's engine while stationary to power the electronic device you have plugged into your Inverter, or to recharge the vehicle's battery, do so only in a well-ventilated area away from other enclosed areas. Automotive and recreational vehicles emit carbon monoxide, which can cause serious injury or death if the vehicle's engine is running in a garage or other enclosed area, or near other enclosed areas.



Warning! Ensure That Your Inverter's Power Cable Does Not Become Tangled with Your Vehicle's Driving Controls!

When using your Inverter in your vehicle, ensure that the Inverter and its power cable are positioned in such a manner that they do not impede the use of the foot controls (brake, clutch, throttle) or hand controls (gearshift, steering wheel); any impediment may lead to unsafe operation of the vehicle. When you are operating your vehicle, stow your Inverter in a safe place such as the glove box when not in use.



Warning! Your Inverter May Become Hot During Operation, and Requires Proper Ventilation!

To Prevent Injury and Property Damage:

- Do not place your Inverter near a heat source or heat vent, or in direct sunlight.
- Provide adequate ventilation and do not place any item on or near your Inverter during operation.
- Do not use your Inverter inside a closed glove box, console, or airline seat pocket.
- Keep your Inverter away from flammable materials or other items that can be damaged by high temperatures.

- Do not operate the Inverter near flammable fumes or gases.
- Loose connections can generate harmful heat and/or cause damage to your Inverter or power source. To prevent this from occurring, periodically check that your Inverter's input power cable and output connections are tight.
- Do not operate or leave your Inverter unattended while in use.
- Do not touch the tip of your Inverter's cigarette lighter plug or the end of the Inverter cable after use. The plug may be hot.



Warning! Some AC Products Are Not Compatible with Your Inverter!

Your Inverter does not operate appliances and equipment that produce heat, such as microwave ovens, toasters, kettles, hair dryers/curling irons, and electrical heaters. Do not use your Inverter with these products. Your Inverter is not recommended for use with inductive loads such as pumps, compressors, or fluorescent lamps.

If either your Inverter's fuse is blown or its overload protection components are activated, do not attempt to power any of the following:

- Small battery-operated products such as rechargeable flashlights, some rechargeable shavers, and night lights that are plugged directly into an AC receptacle to recharge.
- Certain battery chargers for battery packs used in hand power tools. These chargers will have warning labels stating that dangerous voltages are present at the charger's battery terminals.
- RV or household AC distribution wiring or extension cords.
- Any AC load circuit in which the neutral conductor is connected to ground (earth) or to the negative of the DC (battery) source.

Using Your Inverter

NOTE: After use, unplug it from the cigarette lighter/vehicle power port, or EmPower® port.

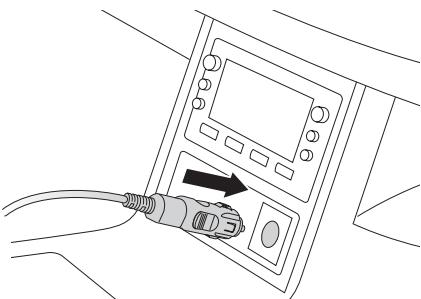
To Connect Your Inverter to a Cigarette Lighter or Vehicle Power Source

1. Before using your Inverter in your vehicle, check to see that the portable electronic device you want to use with your Inverter does not draw more than 120W of continuous AC power. To determine this, check the product label for the device to find the voltage (Volts; V) and current (Amps; A) requirements. Multiply: Volts x Amps = Power requirement of the device (Watts; W). If this number is greater than 120, you cannot use your Inverter to power the device.



Warning! Use caution when removing your vehicle's cigarette lighter plug from its socket. The cigarette lighter may be hot and could burn your skin or ignite flammable materials. Allow the lighter to completely cool before storing it in a safe place.

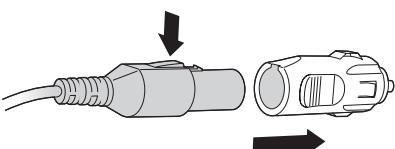
2. Plug the portable electronic device that you are intending to power into the AC receptacle of your Inverter.
3. If necessary, remove your vehicle's cigarette lighter plug from its socket.
4. Insert your Inverter's cigarette lighter connector firmly into the cigarette lighter/vehicle power source or other DC power supply.



5. Your Inverter's LED will glow when the Inverter is properly connected to the power source.

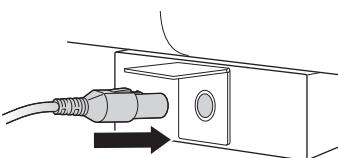
To Connect Your Inverter to an EmPower® Port Onboard an Aircraft

1. On the end of your Inverter power cable, locate the cigarette lighter/vehicle power connector. Push down on the tab, and pull the cigarette plug apart from the in-flight connector.



NOTE: When you need to use your Inverter in a vehicle, just re-insert the cigarette lighter connector onto the in-flight connector

2. Find the EmPower® port socket near your airline seat, and plug the in-flight connector into the socket firmly.



3. Your Inverter's LED will glow when the Inverter is properly connected to the EmPower® port.

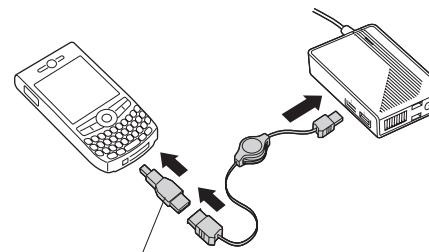
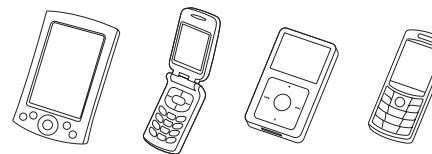
NOTE: Only 75W of continuous power will be available from an EmPower® port. If your device requires more than 75W of power, the device may not work onboard an aircraft. Some notebooks requiring more than 75W may still function, but switch between "charging" and "battery" and suffer from a decrease in performance.

Setting Up Your Inverter's USB Function



Warning! Under certain circumstances the USB Power Port provided may not be able to charge your digital device!

Under certain circumstances the USB Power Port provided on your inverter will not be able to charge your low powered device. Some manufacturers require the USB port to recognize the attached device as in the case of a notebook USB port. This functionality cannot be duplicated on your Inverter under all circumstances. Visit www.kensington.com for further details



* USB Power Tips packs sold separately.

Care of Your Inverter and Usage Notes

Preventing Overheating

- Your Inverter needs to have the best possible air flow around it while operating. Note that the air flows into the bottom (intake) vents located near your Inverter's product label and exits through vents on the sides and back. Do not restrict the airflow as your Inverter may overheat.

- Do not operate your Inverter near a heat source or heat vent, or in direct sunlight.
- Ambient air temperature should be between 23 and 122° F (-5-50°C). Optimal performance temperatures are between 60 and 80°F (15-25°C).

Automatic Safety Shutdown Features

Your Inverter automatically shuts itself off in any of the following situations:

- Over-voltage—Your Inverter's LED glows RED and automatically shuts down when the voltage from your vehicle or its battery exceeds 16V. Remove and reinsert the cigarette plug adapter to restart your Inverter.
- Low-voltage—Your Inverter's LED glows RED when the voltage from your vehicle or its battery is less than 10.5VDC. Restart your vehicle's engine to recharge its battery.
- Overload—Your Inverter's LED glows RED and automatically shuts down when the AC draw exceeds 150W. Remove and reinsert the cigarette plug adapter to restart your Inverter.
- Short circuit—Your Inverter will automatically shut down the output when it detects a short circuit. Having reverse polarity will result in the internal non-user serviceable fuse being blown.
- Overheating—Your Inverter's LED glows RED and automatically shuts down when the internal temperature exceeds 140°F (60°C). Remove the cigarette plug adapter from the power source and allow your Inverter to cool for at least 15 minutes before reinserting the cigarette plug adapter.



Warning! Do not touch the tip of your Inverter's cigarette plug adapter after use. The plug may be hot and could burn your skin or ignite flammable materials. Allow your Inverter's cigarette plug adapter to completely cool before storing it in a safe place.

Starting and Running Your Vehicle's Engine

- Your Inverter may be used with or without your vehicle's engine running. However, your Inverter may momentarily stop operating while your vehicle's engine is starting as the battery voltage can drop substantially during cranking.
- In most instances, your Inverter can be left connected to your vehicle's power source when not in use since it draws very little current (0.25A). However, if your vehicle is to remain unused for more than one day, disconnect your Inverter from your vehicle's power source.

NOTE: Unplug your Inverter from the cigarette lighter/vehicle power port when not in use.

- Depending on variables such as battery condition, device being operated, and weather, an automotive battery can be discharged after 2 to 8 hours of use. You should either monitor voltage or start the vehicle every hour to recharge the vehicle's battery. This will guard against any unexpected shutdown of the equipment and will ensure that there is always sufficient power to start your vehicle.

- With the engine running, the vehicle's battery has much more capacity available and at a higher voltage. If the Inverter is shutting down due to an excessive load with the engine off, keeping the vehicle's engine running may remedy the problem.



Warning! Do not run your vehicle's engine in a garage or other enclosed area! If you run your vehicle's engine while stationary to power the portable electronic device you have plugged into your Inverter or to recharge the vehicle's battery, do so only in a well-ventilated area, away from other enclosed areas. Automotive and recreational vehicles emit carbon monoxide, which can cause serious injury or death if the vehicle's engine is running in a garage or other enclosed area, or near other enclosed areas.

Troubleshooting

“Buzzing” sound in audio systems—Some inexpensive stereo systems and “boom boxes” can emit a buzzing sound from their speakers when operated from your Inverter. The only solution to this problem is to use a sound system that incorporates a higher-quality power supply.

Television interference—Your Inverter is shielded and filtered to minimize interference with TV signals. In some cases, some interference may still be visible, particularly with weak TV signals. Try the following corrective measures:

- Position your Inverter as far as possible from the television, the antenna, and the antenna cables.
- Adjust the orientation of your Inverter, the antenna cables, and the TV power cord to minimize interference.
- Make sure that the antenna feeding the TV provides an adequate (“snow free”) signal and that a high-quality, shielded antenna cable is used.

Lack of AC power output—Some vehicles' electrical systems require that when the vehicle's engine is off the ignition key must be in the “on” or “accessory” position in order to power the cigarette lighter.

Blown fuse in your vehicle's 12V outlet circuit—Refer to your vehicle's Owner's Manual for instructions on replacing blown fuses. Be sure that the Inverter is connected to a power source with correct voltage and polarity and the portable electronic device that you are intending to power does not require 120W or more of AC power continuously.

Battery voltage below 10.5VDC—Charge or replace your vehicle's battery.

Equipment being operated draws too much power—Reduce load to maximum 120W.

Inverter in thermal shutdown condition—Unplug your Inverter from the power source and allow it to cool down. Ensure there is adequate ventilation around your Inverter. Ensure that the device you are intending to power does not require more than 120W of AC power for continuous operation.

Inverter is overloaded—Reduce load to 120W maximum to maintain regulation.

Low input voltage—Keep input voltage above 12VDC to maintain regulation.

Low battery/Poor battery condition—Charge or replace your vehicle's battery. See

Starting and Running Your Vehicle's Engine in this guide.

Inadequate power or excessive voltage drop—Check the condition of your vehicle's battery clips and terminals. Clean or replace, as necessary.

Built-in circuit protection features

Input:

1. Over-voltage protection: Automatic shut-off when input exceeds 16VDC
2. Under-voltage protection: LED glows RED warning of an input voltage condition of less than 10.5VDC

Output:

1. Short-circuit: Automatic shut-off when short circuit occurs
2. Over-load protection: Automatic shut-off when output power exceeds 150W
3. Over-temperature protection: Automatic shut-off when temperature exceeds $65^{\circ}\text{C} \pm 5^{\circ}\text{C}$ (140°F). Remove the cigarette plug and the load from your Inverter and let it cool down for 15 minutes. Then reinsert the cigarette plug to restart the Inverter. Your Inverter will automatically restart after automatic shut-off occurs.

DC Power Source Requirements

Your Inverter must be connected only to vehicles with a DC power source rated at a nominal output voltage of 12V. Your Inverter will not operate from a 6V battery and will be damaged if it is connected to a 24V battery. The power source must provide between 10.5-16VDC. The power source may be a battery or other well-regulated 12VDC power supply. Check your vehicle's Owner's Manual.

The power supply must also be able to deliver the current necessary to operate the load created by the portable electronic device that you are intending to power. As a rough guideline, divide the power consumption of the device (in Watts; W) by 12 (the nominal input voltage) to obtain the current (in Amps; A) the power source must deliver.

Example: If a device is rated at 120W, the power source must be able to deliver $120/12 = 10\text{A}$. Most vehicular 12V cigarette lighter outlets have fuses that will permit the outlet to draw between 15 and 20A.

AC Power Draw Guidelines

Most electrical tools, appliances, and audio/video equipment have labels that indicate power consumption in Amps or Watts. Be sure that the continuous power consumption of the device you wish to power is rated at 120W or less. If the power consumption of the device is rated in Amps, simply multiply by the AC Volts (115) to determine the wattage.

Example: A power drill rated at 0.5A will draw $0.5 \times 115 = 57.5\text{W}$. Do not use your Inverter to operate a device that requires more than 120W of continuous power.

Technical Specifications

DC Input	
Input voltage:	10.5VDC-16VDC
AC Power Output	
Output power:	120W Continuous 150W Peak (5 min) NOTE: Only 75W available from EmPower® airline port
Output power (surge capability):	250W
Output voltage RMS:	115 +/- 5VAC
Output frequency:	60Hz +/- 1Hz
Maximum efficiency:	85-90%
Output waveform:	Regulated Modified Sine Wave
AC receptacle outlet:	Accepts common US AC plugs including 3 Pin
USB Power Output	
DC Output Voltage	5VDC
DC Output Current (Max)	0.5A DC per USB port
Physical Specifications	
Unit dimensions:	100(L) x 70(W) x 23(H) mm
Unit weight:	200g (includes cable & plug)
Storage temperature:	-10°C to 60°C (-14°F to 140°F)
Operating temperature:	0°C to 40°C (-32°F to 104°F)
No load current draw:	<0.2A
Low battery red LED:	10.8VDC
Regulatory approval:	FCC Class B
Length of DC input power cord:	0.6m (2ft)
Case material:	UL rated 94V-0

Technical Support

Technical support is available to all registered users of Kensington products.

Web Support

You may find the answer to your problem in the Frequently Asked Questions (FAQ) section of the Support area on the Kensington website: www.kensington.com.

Telephone Support

There is no charge for technical support except long-distance charges where applicable. Please visit www.kensington.com for telephone support hours. In Europe, technical support is available by telephone Monday to Friday 09:00 to 21:00 (Central European time).

Please note the following when calling support:

- Call from a phone where you have access to your device.
- Be prepared to provide the following information:
 - Name, address, and telephone number
 - Name of the Kensington product
 - Make and model of your computer
 - System software and version
 - Symptoms of the problem and what led to them

Please call one of these numbers:

België / Belgique	02 275 0684	Nederland	053 482 9868
Canada	1 800 268 3447	Norway	22 70 82 01
Denmark	35 25 87 62	Österreich	01 790 855 701
Deutschland	0211 6579 1159	Portugal	800 831 438
España	91 66 2 3833	Schweiz / Suisse	01 730 3830
Finland	09 2290 6004	Sweden	08 5792 9009
France	01 70 20 00 41	United Kingdom	0207 949 0119
Ireland	01 601 1163	United States	1 800 535 4242
México	55 15 00 57 00	International Toll	+31 53 484 9135

TWO-YEAR LIMITED WARRANTY

KENSINGTON COMPUTER PRODUCTS GROUP («KENSINGTON») warrants only to the original purchaser of this product from a Kensington-authorized reseller or distributor that this product will be free from defects in material and workmanship under normal use and service for two years after date of purchase. Kensington reserves the right, before having any obligation under this limited warranty, to inspect the damaged Kensington product, and all costs of shipping the Kensington product to Kensington for inspection shall be borne solely by the purchaser. In order to recover under this limited warranty, Purchaser must make claim to Kensington within 60 days of occurrence, and must present acceptable proof of original ownership (such as original receipt, warranty card registration, on-line registration, or other documentation Kensington deems acceptable) for the product. KENSINGTON, at its option, shall repair or replace the defective unit covered by this warranty. Please retain the dated sales receipt as evidence of the original purchaser's date of purchase. You will need it for any warranty service. In order to keep this limited warranty in effect, the product must have been handled and used as prescribed in the instructions accompanying this warranty. This limited warranty does not cover any damage due to accident, misuse, abuse or negligence. This limited warranty is valid only if the product is used with the equipment specified on the product box. Please check product box for details or call KENSINGTON technical support. This limited warranty is non-transferable and does not apply to any purchaser who bought the product from a reseller or distributor not authorized by Kensington, including but not limited to purchases from internet auction sites. This warranty does not affect any other legal rights you may have by operation of law. Contact KENSINGTON at www.support.kensington.com or at one of the technical support numbers listed below for warranty service procedures.

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